

Ohio Field Office
Usage of Earned Value Questionnaire
9/13/01

Question	AEMP	CEMP	FEMP	MEMP	WVDP
1	yes	yes	yes	yes	yes
2	<p>We have been reporting in an earned value format since 1994. The AEMP uses Microframe Project Manager (MPM) to assimilate data and information provided by Control Account Managers and entered and summarized by WBS element. Supporting data and information is provided by the scheduling system utilizing Primavera software.</p>	<p>Current method of analysis has been done for about 3 years. We use Quatro Pro, entering data on a spreadsheet and using graphics capability to produce line graphs by Work breakdown Structure (WBS). This is supplemented by analysis of variances.</p>	<p>The site will be statusing performance using Microframe Program Manager (MPM); this includes earned value types of LOE, Apportioned, and Weighted Milestones and a new system being implemented on 10/01/01 called Quantity Management System (QMS); for activities that are measurable.</p> <p>The process for involving QMS, MPM and P3 is as follows: Percent complete status will be performed in QMS. This information will be exported from QMS and imported into MPM where LOE, Apportioned, and Weighted Milestones will be statused. All percent complete values will then be exported from MPM and imported into P3. The start and complete</p>	<p>Earned Value Reporting has been a contract requirement at Mound since the development of the Mound Exit Project. We are currently using Primavera (P3) as our scheduling software, Cost Point (a commercial product of Deltek) as our financial system, and Cobra (a commercial product of Welcom) as our earned value measurement and reporting system.</p>	<p>Primavera Project Planner / Excel since 1999 and before that, Artemis (mainframe system) was utilized since the mid-eighties.</p>

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			dates from P3 will be imported into MPM. Cost and Schedule Integration will be performed on all three systems for cost and schedule validation.		
3	Earned value is determined at the Work Package level through the use of weighted milestones, per cent complete, or level of effort methods. If not specified, the weighted value of a milestone is determined from the Budgeted Cost of Work Scheduled (BCWS) value for the activity leading up to the milestone.	Earned value = BCWP. From that, cost and schedule variances are calculated.	<p>In MPM: LOE percent complete is always equal to the charge number's budgeted cost of work scheduled (BCWS). Milestones consist of: - 0/100, 25/75, 50/50, 40/60 (receive % of your BCWP when your milestone started and the remaining % once milestone is complete). - Weighted Milestones consist of progressive percent complete values determined for each delivery date of that milestone with 100% performance taken upon the final delivery. C. Apportioned is used for scope that is in direct support of discrete work and will base percent complete on that discrete work's earned value.</p> <p>In QMS: Activities that are</p>	Primavera establishes the budgeted cost of planned scheduled activities, or BCWS, for a current period. The project managers along with the project control members determine how much of the planned scope was actually performed within the current period (Budgeted Cost of Work Performed), or BCWP. The finance department tracks project costs through charge codes that have been authorized based on the planned work scope (Actual Cost of Work Performed. The common thread through each system is the project work breakdown structure. The data from primavera, BCWS and BCWP, are combined with the data from Cost Point, ACWP, into Cobra. Cobra then provides the project managers, project	Earned value is calculated by determining how much of an estimated budget was performed, and then comparing that to the actual costs incurred for performing the work. This then determines the schedule and cost variances and indexes used to manage the overall scope of work for the WVPD. This information is collected at the lowest level of detail (work package) and then summarized at various levels in between, up to the most upper level.

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			<p>measured for work accomplished by using weighted percentages, earned quantities, and percent completes. Information in QMS is detailed at the activity level, and broken down to pre-defined subtasks where status is installed quantities are measured and percent complete is calculated. This information is then exported out of MPM and imported into MPM and P3.</p>	<p>control staff, and senior management with project status at varying levels of the WBS for analysis, reporting, and if required corrective action development/management. Raw Project status would include: Current period Cost Variance (BCWP-ACWP=CV), Current period Schedule Variance (BCWS-BCWP=SV) and FYTD/PTD (Same information)</p>	
4	<p>All organizations are involved in earned value reporting. The Finance organization is only responsible for providing actual cost information by WBS element to the Project Controls department for entry into MPM. Work Package and Control Account Managers from all functional organizations are responsible for providing schedule status information to Project controls. Project Controls verifies the input and enters the data into MPM. The</p>	<p>The contractor (Battelle) prepares the Cost Performance Report (CPR). Analysis is performed by both Battelle and the Columbus Environmental Management Project (CEMP).</p>	<p>The Contractor's project managers in each PBS, with the support of Project Controls. Finance is not involved.</p>	<p>Project Management is primarily responsible for Earned value measurement, reporting, and analysis both on the contractor side and the MEMP side. Finance is integrated into the process through evaluations and audits of actual costs, and through the reporting networks that projects and finance share.</p>	<p>Project Administration and Strategic Planning is responsible for generating the earned value analysis reports. The Finance (Controller's) organization is involved in supporting the process through the collection of actual costs, however many project people across the organization contribute to the process.</p>

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	<p>MPM output is then distributed back to the Work Package and Control Account Managers to review and provide variance analyses if specified thresholds are breached. This information is submitted back to Project Controls who then produces Cost Performance Reports, Variance analyses, etc as part of the monthly Project Status Report.</p>				
5	<p>The reporting is done monthly. From the time that actual costs are available, which is around the 5th calendar day of the month, it takes until the report is delivered by the 20th calendar day of the month to produce and report the information. All site Work Package and Control Account Managers as well as Project Controls are involved. This is about up to 40 people being involved for at least part of the time, with two people from Project Controls being involved all of the two weeks.</p>	<p>Reporting is done monthly. Preparation of the CPR is accomplished by Battelle Finance, with input from all work managers. CEMP analysis takes about 2 man-days.</p>	<p>Statusing is done on a monthly basis and can begin the first day of the fiscal month. There are approximately eight (8) days available for statusing. People involved would consist of a Project Manager, Cost Analyst, and Scheduler for each PBS for a total of approximately 33 people.</p>	<p>Reporting is required monthly per contract with the contractor. We report to HQ quarterly. It takes approximately 150-250 hours per report on the contractor side including the baseline management organization, project controls, and project management/engineering. MEMP informal monthly reviews take between 80-120 hours per report and include project management and finance.</p>	<p>Earned value analysis is performed monthly. It takes approximately 5 working days to complete. Reporting is done monthly, quarterly and annually. This roughly involves about 40 people to varying degrees, and does not represent a full time equivalent value.</p>

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6	<p>It was a major undertaking to implement Earned Value Reporting at the site in 1994 because it had not been done here previously. Some difficulty was encountered due to the learning curve of getting the system description and procedures written, people trained, and the people to utilize the process. Overall, it took approximately nine months for all facets to be developed, implemented, approved and used. Cross functional teams were used after the basic system was outlined by new hire Project Control personnel and subcontractors to both Earthline Technologies, the site's decommissioning contractor, and DOE. The system was refined with cross functional input from more than 50 people.</p>	<p>Relatively easy. CPR has been prepared by Battelle since contract inception. CEMP analysis accomplished by contractor support with previous experience.</p>	<p>The FEMP has always reported earned value, so the answer to this question would be that it was not a major undertaking. We did take some time in evaluating a different program (MileMarker), so there was time for training and evaluation process. After approximately six (6) months, a decision was made to not utilize MileMarker. Instead QMS (an in-house application was created). Managers and Project Controls job classifications were involved.</p>	<p>As stated above it was a contract requirement and the contractor had to propose an integrated system for MEMP approval. Once the system is selected and approved (2-3 months) it should be running in as little the next 30-60 days or 6months to a year depending on the size of the project and how much data conversion/generation and training is required.</p>	<p>(No response)</p>
7	<p>It is the only way to determine the true status of work and to have formal control of</p>	<p>Defines problem areas where management attention can be focused.</p>	<p>This type of reporting helps managers to have the ability to pinpoint areas needing additional</p>	<p>Allows you to maintain a sense of the health of the project. Direct management attention</p>	<p>Earned value reporting allows management to put attention on areas where needed</p>

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	<p>baselines. Without earned value it would only be possible to compare the cost of work scheduled with actual cost incurred. this would provide no information about the value of the work actually accomplished. Raw scheduling information is helpful, but without the earned value information, it is difficult to determine the real value of the work completed, i.e., all milestones tend to have the same weight. This also is a forcing mechanism that requires managers to use and assess the status of the work for which they're responsible on a regular basis.</p>		<p>oversight. Another benefit is that it establishes the incentive fee to be paid to the contractor.</p>	<p>to problem areas for development of corrective actions before a budget/schedule crisis is at hand.</p>	<p>pertaining to schedule or cost control. This thereby allows for informed upper level management decisions regarding scope, cost and schedule changes/modifications that may be required throughout the fiscal year or life of the baseline.</p>
8	Yes.	<p>Yes. Currency of information is important. Reports must be analyzed soon after receipt in order to impact any problem areas.</p>	Yes	Yes	Yes